

**REMARKS**

Claims 1-6, 9, 15, 16, 18, and 19 are currently pending in this application. Claim 21 is canceled herein without admission or prejudice. Claim 1 is amended herein. Support for amended claim 1 can be found throughout the specification, and at least at, for example, para. [0044]. All of the claims are fully supported by the specification, claims, and figures as originally filed. No new matter is believed or intended to be involved.

**Rejections under 35 USC § 112**

Claims 1-6, 9, 15, 16, 18, 19 and 21 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office states that there is no support for the limitation “a lathering surfactant comprising a mixture of anionic lathering surfactant, amphoteric lathering surfactant, and zwitterionic surfactants.”

Claims 1-6, 9, 15, 16, 18, 19 and 21 were rejected under 35 U.S.C. 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office states that the independent claim requires “a lathering surfactant comprising a mixture of anionic lathering surfactant, amphoteric lathering surfactant, and zwitterionic surfactants,” and it is not clear if all three elements are present in the composition or only two.

Applicants have amended the language to clarify that the lathering surfactant comprises a mixture of anionic lathering surfactants, and one of amphoteric lathering surfactants and zwitterionic lathering surfactants. Applicants submit that the objections have been overcome and respectfully requests that the rejections under 35 U.S.C. 112 be withdrawn.

**Rejections Under 35 USC § 102**

Claims 1-2, 5-6, 9, 15 and 18-19 were rejected under 35 U.S.C. 102(b) as being anticipated by Patel et al. (U.S. 5,747,436), hereinafter referred to as Patel, as evidenced by

Applied Surfactant: principles and applications, Chapter 1.4, by Tharwat F. Tadros. Applicants respectfully traverse the rejections and request reconsideration.

Under MPEP § 2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. In addition, the elements in the prior art reference must be arranged as required by the claim. MPEP § 2131 (emphasis added).

Applicants submit that Patel fails to teach or suggest all of the limitations recited in independent claim 1, particularly in the arrangement recited in the claim. For example, independent claim 1 recites a “from about 0.1% to about 5% cross-linked acid co-polymer.” The Office cites to polyquaternium 7 and 10 as meeting this limitation; however, polyquaternium 7 is a copolymer of acrylamide and diallyldimethylammonium (DADMAC) chloride (i.e., a polymeric quaternary ammonium salt derived from the copolymerization of acrylamide and DADMAC monomers), and is not a cross-linked acid copolymer as recited in claim 1. The term “acid” is not referring to the term “acidic” as stated by the Office, rather it may include, for e.g., acrylic acid or carboxylic acid. In addition, polyquaternium 10 is disclosed in Patel as a polymeric quaternary ammonium salt of hydroxylethyl cellulose reacted with a trimethyl ammonium substituted epoxide, which also is not a cross-linked acid copolymer as recited in claim 1. To provide another example, Patel fails to teach or suggest, for example, “a ratio by weight of anionic lathering surfactant to amphoteric lathering and zwitterionic lathering surfactants from about 1.1:1 to about 1:1.5.” Accordingly, Patel fails to anticipate claim 1 in accordance with MPEP § 2131. Applicants therefore respectfully request that the rejection of claim 1 be withdrawn.

Since claims 2, 5-6, 9, 15, 18, and 19 depend from claim 1, and since the art of record fails to anticipate independent claim 1, the art of record also fails to anticipate claims 2, 5-6, 9, 15, 18, and 19 in accordance with MPEP § 2131. Furthermore, claims 2, 5-6, 9, 15, 18, and 19 include additional limitations beyond those recited in independent claim 1, thus forming

independent bases for novelty. Applicants therefore respectfully request that the rejections of all pending claims under 35 U.S.C. 102(b) be withdrawn.

**Rejections Under 35 USC § 103**

Claims 3-4, 16 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Patel in view of Hinz et al (US 5,785,962). Applicants respectfully traverse the rejections and request reconsideration.

To establish prima facie obviousness of the claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). Obviousness rejections “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int'l Co. v. Teleflex Inc.*, 82 U.S.P.Q.2d 1385, 1395-97 (2007) (*quoting In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). For at least the reasons set forth below, Applicant respectfully submits that the art of record fails to render any of the present claims obvious.

Applicants submit that the art of record fails to teach or suggest all of the limitations recited in each independent claim in accordance with MPEP § 2143.03. For instance, as noted above, Patel fail to teach or suggest “from about 0.1% to about 5% cross-linked acid copolymer.” The Office cites to polyquaternium 7 and 10 as meeting this limitation; however, polyquaternium 7 and 10 are not a cross-linked acid copolymer as recited in claim 1. Applicants further submit that, even in combination with Patel, Hinz fail to make up for the deficiency of Patel. Hinz was cited for teaching long chain mono and dialkyl phosphates and an anionic surfactant that comprises 5-50% by weight of the total composition, but fail to cure the deficiencies in Patel as it fails to teach or suggest a cross-linked acid copolymer. Applicants therefore submit that the combined art of record fail to teach or suggest these limitations of independent claim 1. Accordingly, Applicants respectfully submit that the combined art of

record, either alone or in combination, fail to render present independent claim 1 obvious in accordance with MPEP § 2143.

To provide another example, Patel fail to teach or suggest “a ratio by weight of anionic lathering surfactant to amphoteric lathering and zwitterionic lathering surfactants from about 1.1:1 to about 1:1.5.” The Office states that Patel teaches a ratio of sodium cumene sulfate and cocoamidopropyl dimethyl betaine of 25.4% and 74.6%, respectively. The Office also states that Patel describes a final shampoo composition where the weight ratio of anionic detergent to amphoteric surfactant is in the range of about 10:1 to 0.8:1. Applicants submit, however, that while the Office calculated the above percent ratio correctly, it actually translates into a 1:3.9 ratio, which does not teach or suggest Applicants’ claimed ratio. Further, the ratio of anionic detergent to amphoteric surfactant is irrelevant as the claims require a ratio by weight of anionic lathering surfactant to amphoteric lathering and zwitterionic lathering surfactants of from about 1.1:1 to about 1:1.5. Thus, Applicants submit that there is no teaching or suggestion for its claimed ratio.

In addition, the Office states that differences in concentration will not support patentability. Particularly, the Office states that it would have been a matter of routine optimization of the anionic surfactant concentrations (according to Hinz). However, “a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation.” MPEP § 2144.05(II)(B) (*citing In re Antonie*, 559 F.2d 618, 195 U.S.P.Q. 6 (CCPA 1977)). The Office does not show that the prior art of record, alone or in combination, contemplated, and Applicants do not understand the prior art of record to teach or suggest, a ratio by weight of anionic lathering surfactant to amphoteric lathering and zwitterionic lathering surfactants of from about 1.1:1 to about 1:1.5. Applicants’ specification states that Applicants’ cleansing composition provides good cleansing with low irritation and good rinsing from the skin and hair. *See* para. [0001]. Applicants’ composition achieves these properties through balancing of the surfactants used in the formulation. Paras. [0002] – [0006] and [0044]. That is, the ratio of the lathering surfactants is important to avoid

skin irritation issues and may avoid any negative impact to polymeric suspension systems. *Id.* The Office fails to provide any evidence that the prior art recognized any result achieved by optimizing the ratio by weight of anionic lathering surfactant to amphoteric lathering and zwitterionic lathering surfactants from about 1.1:1 to about 1:1.5. Accordingly, Applicants submit that the prior art of record, alone or in combination, fail to render present independent claim 1 obvious in accordance with MPEP § 2143.

Accordingly, the rejections under §103 are believed to be overcome and reconsideration is respectfully requested.

## CONCLUSION

While several distinctions have been noted over the art of record, Applicants note that there are several other limitations recited in the present claims which are neither taught nor suggested by the art of record. Applicants expressly reserve all rights and arguments with respect to distinctions not explicitly noted herein. In addition, to the extent that the amendments constitute a narrowing of the claims, such narrowing of the claims should not be construed as an admission as to the merits of the prior rejections. Indeed, Applicants traverse the rejections and preserves all rights and arguments. To the extent that any particular statement or argument by the Office in the pending Office Action has not been explicitly addressed herein, the same should not be construed as an acquiescence or admission by the Applicants that such statements or arguments by the Office are accurate or proper.

This response represents an earnest effort to place the present application in proper form and to distinguish the invention as claimed from the applied reference(s). In view of the foregoing, entry of the amendments presented herein, reconsideration of this application, and allowance of the pending claims(s) are respectfully requested.

The Commissioner for Patents is hereby authorized to charge any deficiency, including any fees required for an extension of time not already paid for or any other required fees not

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already paid for, or to credit any overpayment of fees, to Dinsmore & Shohl Deposit Account No. 041133.

Respectfully Submitted,  
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